

A Note from the Trustees:

For this year's grant cycle, the North Penn Educational Foundation awarded **45 grants** totaling **\$23,240**. These grants have benefitted students at each grade level.

Grants like the selection described below not only enhance the curriculum but provide a hands-on and innovative way for students to embrace and fully comprehend the lesson. When NPSD educators apply for these grants, some think of how this experience will affect the student in the future. Science and technology grants allow students to understand theories at the next level of thinking. Other grants allow teachers to think about how this experience will benefit students socially and vocationally. We are sure that when you read through these grant descriptions you will see how these experiences allow our students to develop into better students and citizens.

These grants positively affect NPSD students and your support has allowed us to do this.

Nanotechnology Research ★

North Penn High School (NPHS); *Michael Boyer*
NPHS students will participate in extraordinary projects in the "nano-world." Nanotechnology research is performed by senior Engineering Academy students. Each year, 10 or more student teams perform research in various arenas, from organic and natural water filtration to energy creation (piezoelectricity) and more. The NPSD Educational Foundation grant will purchase materials necessary for the students to complete their research and take their ideas and projects from conception to reality.

Vocab Bowl ★

NPHS; *Ellen McKee, Becky Poole and Megan Schmidt*
Eleventh grade students at North Penn High School will participate in a Vocab Bowl, a scholarly competition that is exclusively designed to challenge and delight students. The Vocab Bowl provides an opportunity for academic competition that showcases knowledge while reinforcing the importance of vocabulary in everyday life. Students participate in both team and individual competitions, testing and showcasing their knowledge of vocabulary and reading/writing skills.

LitFest 2014 ★

NPHS; *Ellen McKee, Kevin Manero, Megan Schmidt and Liz Weizer*
More than 300 students will work on a creative appreciation for literature in the high school curriculum through the LitFest. This event will feature several segments, including a gallery of artistic interpretations and creative book covers of the works the classes have studied; a dramatic reading competition featuring students reading their favorite passages; and a Knowledge Bowl where all sections of Honors English will be in competition against each other answering a variety of questions about literature from the curriculum.

Fall Orchard Experience ★★☆☆

Oak Park Elementary School; *Geretha Billetz*
English Language Learners (ELL) from Oak Park will spend a time reading about seasons, farming, apples and pumpkins. After this lesson, students will travel to Solebury Orchards where they will experience a wagon ride through the orchard, pick apples, sample apple cider and have a picnic on the farm. After the trip, students will write about their experience. Not only will this trip make learning come to life for the ELL students, but it will also help acclimate the children to fall customs and vocabulary associated with fall.

Science Night ★★☆☆★

Oak Park Elementary School; *Karlee Clemens, Linda Roberts, Donna Grabner and Shirley Bergman*
Oak Park Elementary School will hold a Science Night to celebrate science with local educational clubs and vendors. The event will educate attendees on the science curriculum at the elementary level, provide hands-on exploration and give

students an opportunity to showcase their understanding of the subject. This is a great forum for students to share what they are learning with others and for staff members to inform parents/guardians of how they can support and extend upon their child's learning in the subject of science.

Enhancing Curriculum through Mural Painting ★

Penndale Middle School; *John Corson*
The halls of Penndale will be bright and colorful thanks to this grant! Art majors and art enthusiasts will continue to paint murals in the hallways of Penndale Middle School, providing students with hands-on experience and the opportunity to bring curriculum to life. The murals will depict community and school events but the whole school will have the chance to pick the subject matter and participate in leaving a last piece of art at the school.

Joy of Reading ★★

NPHS; *Sally Kaufman and Christine McCreary*
This grant will provide support to students during their pregnancy and early childhood parenting while promoting a lifelong enjoyment of reading. The students will receive an early childhood book for every month that they attend school. The student will be encouraged to bond with their child and create a routine that would benefit both parent and infant. The student would be encouraged to read to their child at least five minutes each day. The hope is that these infants will have a joy of reading when they reach school age.

Pennsylvania Candy Maps ★

Inglewood Elementary School; *Terri Klein*
Students will explore the physical features and land uses of the Commonwealth in a very tasty way. Using candy to represent the state's natural resources, landforms and waterways, students will see trends in the landmarks that define a certain region. This activity will not only simulate the students' minds; but will allow students to visualize the diverse geography of the region and the physical characteristics affecting the growth of the area.

Puzzle Boxes ★☆☆

Extended School Care; *Marjie Scott*
In order to provide more engaging activities for quiet time, puzzle prop boxes will rotate through the Extended School Care program in each North Penn elementary school. Puzzle prop boxes will be stocked with word puzzles, math puzzles, traditional jigsaw puzzles, three-dimensional puzzles, minute mysteries and tangrams. These puzzle boxes will provide excellent enrichment opportunities under the guise of "fun" where students can further develop critical thinking skills.

North Penn High School Memorial Garden ★★☆☆

North Penn High School; *Linda Law*

The Memorial Garden serves the community and alumni by providing a place to reflect and remember all the NPHS graduates who are fallen veterans. Through this grant, the Memorial Garden Committee will purchase new trees and fresh flowers. This will allow continual upkeep to this very meaningful garden.

Vocational Value ★★☆☆

Pennfield Middle School; *Stephanie Neri*

Students in the Autistic Support class at Pennfield Middle School will start preparing for the transition from the school setting to the work place early through the purchase of vocational bins. The bins contain activities that demonstrates assembly, office work, service, warehouse and personnel- all important skills when searching for a job. The bins will help students develop their attention to detail, problem solving, matching and ability to use tools. All of these skills will help students attain workplace independence, a very desirable skill for any future employee.

Droponics ★★☆☆

North Penn High School; *Shane Misuro, Daniel Krueger*

North Penn High School students will learn how to operate an economically profitable agricultural center through the purchase of a hydroponics system. Hydroponics is a new soilless growing technique that allows plants to grow faster than traditional methods, in less space and without the need for potentially dangerous chemicals, like pesticides and fungicides. The botany class will quickly grow and harvest various food and flower crops for donation to school clubs, the school cafeteria, food pantries and general members of the North Penn community.

Brains at Work- Science and Literacy ★★☆☆

General Nash Elementary School; *Kelly Crits*

Through the BirdBrain Science program, sixth grade students at General Nash Elementary School will have readings that accompany their hands-on, inquiry-based science lessons. BirdBrain provides teachers with articles written at multiple reading levels, allowing them to differentiate with students' independent reading levels, while maintaining the same core content. Students will have the chance to practice reading skills with informational text in the science content.

Wildlife Warrior ★★☆☆

AM Kulp Elementary School; *Becky McAdon*

English Language Learners (ELLs) from A.M. Kulp Elementary School will visit the KidZooU at the Philadelphia Zoo, a multi-sensory area that allows students to connect with wildlife. Students will discover the life cycles of amphibians, ants, chicks and butterflies, which is aligned with the elementary science curriculum. They will practice making observations about rare breeds of goats, sheep and chickens. Observation skills are a core component of science instruction and can often be difficult for ELLs. This trip allows students to observe and record animals in a real-life setting using their newly acquired language and content.

Autonomous Flying Quadrotors ★★☆☆

North Penn High School; *Michael Voicheck*

Unmanned aerial systems (UAS) are a new technology with a high potential in agriculture and emergency response teams. Through this grant, NPHS students in the Engineering Academy and Model Aviation Club will design, build and maintain their own UAS for research and potential uses in the community. This project topic is highly advanced and will require an in-depth understanding of a growing research area. By allowing students to study and build UASs, they will better understand more about science, math and technology.

Problem Solving through Creativity ★★☆☆

Hatfield Elementary School; *Marilyn Loeffler*

According to studies, about 95% of learning for English Language Learners (ELLs) takes place through their bodies as they do not have a full understanding of the English language. Taking this notion of active learning, approximately 40 ELL students from Hatfield Elementary School will travel to the Please Touch Museum for some "purposeful play." The museum is tied to Pennsylvania's standards in language arts, math, science and social science, and has many interactive displays for students to learn about rivers, explore ecosystems, distinguish between living and non-living and develop and fly a rocket. Play provides the foundation for basic life skills such as building relationships, cooperation and the chance to identify an individual's personality.

A Stormy Day ★☆☆☆

Oak Park Elementary School; *Shirley Bergman, Janet Moser and Kelly Rice*

Lighting, twister and hail – oh my! More than 250 students from grade four through six at Oak Park Elementary School will learn to identify various elements of weather and the combinations of elements that cause various weather conditions through a program presented by the Franklin Institute. In the primary grades, students study weather but after this early exposure, they do not study the topic further. This presentation will allow Oak Park students to take this elementary knowledge and connect the new learning presented to heighten their understanding of weather.

North Wales News ★★☆☆

North Wales Elementary School; *Derek Fickert*

This project will provide North Wales Elementary School students with the opportunity to create and watch a professional-looking newscast with the purchase of advanced lighting and sound equipment. NWTV develops a news program that share pertinent information with the entire school community. Also, as students reach sixth grade they will have the opportunity to sign up for a before-and-after school activity where they will write, report, shoot and edit the news program. The final product will be distributed to the entire school community through NPTV's YouTube channel.

Shakespeare Alive! ★☆☆☆

North Penn High School; *Andrea Roney*

Through the DeSalles Shakespeare Festival, the Linny Fowler Will Power Tour will present the play, "Much Ado About Nothing" and a post-play discussion to the entire tenth grade at North Penn High School. This professional performance will show students the rich texture of a Shakespearean play including the complexity of characters, the brilliance of the dialogue and the true staging of a comedy. While North Penn students study Shakespeare, they do not have the opportunity to see a play as it was intended to be performed. Students read about three-to-five Shakespearean plays during their time at North Penn and watching "Much Ado About Nothing" on stage will complement the curriculum.

Planetarium Telescope Wifi Accessories ★★☆☆

North Penn High School; *James Bauman*

The equipment purchased with this grant will enable the NPHS planetarium telescope to be connected wirelessly to the planetarium iPad. After a simple alignment procedure, software on the iPad will communicate with the telescope. The students will then use that software to choose any object that is currently in the sky and help the student position the telescope so that they can view that object through the eyepiece. The software also allows students to pull up a large amount of information on the objects they are viewing, allowing them to discover more about the object while still in the telescope eyepiece.

Inspiring Writers ★

Oak Park Elementary; *Tina Zisk*

The 490 students at Oak Park Elementary School will be visited by an author and musician. Throughout the day, each student will have time to attend a writing workshop with the author and musician. The writers will share their excitement and the energy they use when writing. Students will then begin to tap into their own creativity as they begin to form ideas and learn the process of writing. The author and musician will stay and provide an evening workshop for families and siblings.

Reality Day ★

Penndale Middle School; *Rebecca Rousseau, Sharon Miller, Ed Brun*

Seventh-grade students will apply mathematical concepts directly to everyday life experiences in a Reality Day workshop. A large area will be set up into stations representing multiple real life situations. These will include a restaurant, grocery store, clothing store, realty office and bakery. Students will travel from station to station completing related tasks using ratios and proportional relationships. Students will be engaged in the real world experience as outlined in the Pennsylvania common core standards. Research shows that by making learning applicable and making connections to real life, students are more likely to retain concepts.

North Penn Montco Robotics Club ★

North Penn High School; *Justin Hall*

North Penn Montco Robotics is a joint venture between North Penn chapter of FRC (First Robotics Championship) and the North Montco Technical Career Center. North Penn Montco Robotics extends the mission of USFIRST to inspire young people to be science and technology leaders, by engaging them in exciting mentor-based programs that build science, engineering and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.

This provides students the opportunity to design, develop, and create a robot to perform a specific task using the latest technology and innovations; under the guidance of mentors who are in various fields of engineering. The combination of student engagement and mentor-based instruction, creates an ideal environment to foster the dreams and ambitions of students who wish to pursue a career in engineering as the club has various opportunities for students to explore the fields of mechanical engineering, electrical engineering, and programming all into one.

From this grant, the club will purchase materials to build two robots. One robot will be the official robot that the club will take to competition and the second will be the group's test robot to design and modify components on the first. Because of the desire to build colon robots, they estimate that each robot will cost roughly a few thousand dollars each to build.

The Holocaust ★★

Walton Farm Elementary School; *Lisa Bowen-Gotwals*

Sixth-grade students will read the book, *The Number of the Stars*, as their social studies teacher facilitates a lesson about the Holocaust. The students will be able to identify aspects of a text that reveal the author's point of view/purpose in relationship to her experiences during the Holocaust. What makes this learning experience different and unique is that the students will get to meet with the person whom they read about in class. By meeting and having a conversation with Ilse Lindemeyer, a Holocaust survivor, the children will have a better understanding and will have made a text to self a connection.

Adding Creatures to Bioluminescence ★

Walton Farm Elementary School; *Kimberly Blauvelt*

Since Physical Science is taught in sixth grade, students learn about the importance of light to life. Bioluminescence is another facet to the four science units studied already. Students will be able to further understand the concept of bioluminescence by studying and caring for a salt water aquarium. Students will be able to embrace life under the sea by understanding its relationship to life on land in reference to light.

Off the Grid Classroom ★★

Penndale Middle School; *Brian Conti, John Collier*

With the installation of a solar panel, students at Penndale Middle School will learn how the energy of the sun is captured and converted to electricity. Reading about solar energy and discussing it is great, but having the panel (basically) in their classroom will allow the students to monitor the amount of electricity the class is using compared to how much they are generating. Students will also study the pros and cons of renewable energy. They will perform analysis to calculate how effective solar panels would be in various situations.

Nanotechnology Research ★

North Penn High School; *Michael Boyer*

NPHS students will participate in extraordinary projects in the "nano-world." Nanotechnology research is performed by senior Engineering Academy students. This year, teams are researching bioresponsive hydrogels, electrically conductive polymer nanofibers and superconductive nanofibers. The NPSD Educational Foundation grant will purchase materials necessary for the students to complete their research and take their ideas and projects from conception to reality.

Sharing Writing Through the a Document Camera ★★☆☆

Gwynedd Square Elementary School; *Amanda Cooper*

The use of a high resolution document camera, in conjunction with a Smart Board, will allow Kindergarten students to share their writing pieces with their peers. Students will be able to project their writing onto the board for everyone to see simultaneously. The class will then look for proper writing conventions, detailed illustrations, etc. This camera will provide improved visual access to shared documents; this would be especially beneficial to students in the learning support or autistic support programs as well as children who are in the English as a Second Language program since so many of these children rely heavily on visual learning strategies.

A Colonial Day in Pennsylvania ★☆☆

Oak Park Elementary School; *Shirley Bergman, Janet Moser, Kelly Rice*

The fourth grade social studies curriculum concentrates on Pennsylvania and the state's history. Through this grant, two organizations will come to Oak Park Elementary School to talk about early life in Pennsylvania. Representatives from the Colonial Plantation and an anthropologist/archeologist who studies the Lenape Tribe will discuss colonial life and how it impacted their people. Students will get a better understanding of colonial Pennsylvania, the contributions others have made in the past and investigate artifacts of both colonial people and Native Americans.

Community Helpers

Andrea Bowers – Hatfield Elementary School

The ELL students at Hatfield Elementary School will visit various community resources such as the supermarket, bank, fire station, police station, ambulance corps, and the Post Office to experience those community resources and learn what the community workers do. *(continued on next page)*

Community Helpers *(continued)*

The police station will be especially good for our new ELL students since in some countries police are somewhat feared. This learning experience will translate to experience students can use to comprehend texts and social interactions with their peers.

Autism Support Students Learning to Care for Live Animals ★★

Hatfield Elementary School; *Sara Pileggi*

Through a local farm, the Autistic Support Class at Hatfield Elementary School will host a guinea pig and rabbit in their classroom for two weeks. By caring for this creature, students will learn how to follow a schedule to address the needs of the animal, learn how to follow both written and visual directions and use measurement when feeding the animal. All of these are life skills taught in class that will be reinforced by caring for the animal.

Introduction to Robotics ★

Pennbrook Middle School; *Andrew Hollstein*

Throughout the marking period, students in the Exploring Technology class will learn what a robot is and how to program one. Through modeling, pair share, and independent learning, students will explore robotics through a series of labs. Thanks to this grant, equipment pieces for the robots will be upgraded or replaced, allowing students to work with components that run efficiently.

PBTV Equipment ★★☆☆

Pennbrook Middle School; *Nicasio Lorenzo*

Pennbrook TV Club will update its equipment for the Pennbrook TV studio. Upgrades include new lighting and two-way radios. The lighting will allow the club to address issues it is having when super-imposing images onto the background during live-recordings. The upgrades will also help to make the green screen easier to use. The radios will help students to instantly communicate with one another to correct errors when recording a live event.

Experience a World Class Art Museum ★

Northbridge School; *Marcia Lucas*

A field trip experience consistently endorses the academic rigor of all academic instruction by illustrating the “inter-connectedness” of learning pursuits. Students will travel to the Philadelphia Museum of Art to see the various treasures of the museum. Throughout their time viewing the exhibits, Northbridge students will be invited to sketch and express their creativity. This trip will facilitate a more rounded educational experience for Northbridge students.

Field Trip to Fonthill Castle ★★

Penndale Middle School; *Cara Lewis*

English Language Learners will experience local culture by traveling to the Fonthill Museum in Doylestown. Students learn about agricultural tools in history class, but this trip will give them the opportunity to see artifacts in person which helps to create a stronger text-to-self experience that enriches their social studies lesson. By providing this experiential learning opportunity, students will be able to practice their language and academic vocabulary skills.

Sphero Robotics Programming ★

Penndale Middle School; *Chad Guzenhauser*

The Applied Technology course will be able to cover the topics of robotics thanks to the purchase of Sphero kits. Sphero is a robot ball with several features that can be controlled through mobile apps, including computer programs that students

build. By working with the Sphero kits, students will strengthen their knowledge in math, physics and computer science. With this lesson and strengthening their background in Science, Technology, Engineering and Math (STEM), students will be able to develop skills needed to move on to successful careers in related fields.

Math Midway ★

District-wide; *Louise Kirsch*

Through a program by the National Museum of Mathematics, a Math Midway 2 Go exhibit will be set up at Pennbrook Middle School, essentially establishing a temporary math museum in for the North Penn School District. Students will be invited to participate in six hands-on exhibits that highlight the wonder of mathematics and see how their curriculum topics tie into various occurrences. By participating in Math Midway, students from kindergarten to high school will deepen their understanding of math concepts aligned with Core Math Standards by utilizing hands-on learning experiences that utilize equipment not normally available through district resources.

North Penn Coral Reef ★

North Penn High School; *Shane Misuro*

The major objective of the North Penn Coral Reef is to give all marine science students the ability and materials necessary to observe, work with, and perform experiments on coral reef organisms. This grant will allow for the construction and maintenance of a reef tank that can be used to house specimens currently discussed in class, demonstrate in a hands-on way various concepts that are taught in class, and provide a controlled self-contained ecosystem on which students can experiment. The use and integration of this tank in the current marine science curriculum would give all students a better idea of the work done by professional marine scientists.

News Program ★★☆☆

North Wales Elementary School; *Derek Fickert*

North Wales News is off the ground and running thanks to previous support from the NPSD Educational Foundation. Through this grant, North Wales News will purchase a teleprompter that will be used during the days the students are in the studio producing the program. This will allow students a better understanding of the type of technology used in more professional settings with hands-on experience. The teleprompter will also help the final broadcast look crisp and be a higher production quality.

Valley Forge and the Revolutionary War ★★

Pennfield Middle School; *Donna DeTommaso-Kleinert, Deb Bovell, Josephine Puglia-Robison*

English Language Learners (ELLs) often have little context or background in American history. Students study the American Revolutionary War and all of the events that led up to and following the war. By taking a trip to Valley Forge, the ELL students will have a better understanding of that time in US history. After the trip, students will be able to evaluate how Valley Forge and George Washington related to the Revolutionary War and make connections between the independence and revolutions of their native countries with American history.

Self-Driving Car ★

North Penn High School; *Michael Voicheck*

Unmanned systems are becoming a part of our everyday lives, but yet remain a mystery to students on how they work. Students in Electronics I and II will construct an autonomous driving model. This vehicle will contain GPS equipment, a micro-computer, camera and other components that will enable it to navigate by itself. Students will gain experience in heavy problem solving, teamwork and collaboration.

Maglev Project ★★☆☆

North Wales Elementary School; *Derek Fickert*

This grant will enhance the learning in connection with the Magnets and Motors and Solar units taught in sixth grade at North Wales Elementary School. Students get a real-world connection through the research and development of their own maglev trains. Magnetic levitating trains are a new technology in the United States and are often a topic of national debate. On the last day of the Magnets and Motors unit, North Wales students race their maglev trains against students in the Springfield School District. Through the grant, the maglev trains will be incorporated into the Solar Unit with the purchase of solar panels and lighting for the maglev track. This hands-on interdisciplinary lesson will motivate and push students towards wanting to ask higher level questions and research information about a current topic.

Butterfly Man ★

Bridle Path Elementary School; *Maureen Zazyczny, Nancy Kahn, Suzanne Sylvester and Elizabeth Melville*

First grade students from Bridle Path Elementary School will attend a phenomenal presentation from Rick Mikula, a certified and world renowned butterfly expert. This project supplements the first grade science curriculum and acts as an enrichment opportunity that allows students to have first-hand visual experience.

Zoo on Wheels ★★☆☆

Pennbrook Middle School; *Sarah Barndt*

The secondary Extended School Year (ESY) Program in the North Penn School District is offered to students in special education to maintain the goals designed in their Individualized Education Plans (IEP's). Students enrolled in ESY will attend a Zoo on Wheels presentation which will give them the opportunity to learn about animals. Educators will be able to design instruction creatively to incorporate knowledge of the animals that will be visiting. Extension opportunities will be available in all subject areas.

Reading Super Bowl ★

Multi-School; *Cheryl Neubert*

The Annual North Penn Reading Super Bowl, held in conjunction with the date of the NFL Super Bowl, takes North Penn Knights football players to visit to all 13 elementary schools in the North Penn School District. The Knights read to NPSD elementary students and emphasize the importance of reading. Each year, the number of students who participate in this district-wide activity increases as the program grows. The original Reading Super Bowl had 30 football players who read at eight elementary schools in NPSD. In the 2013-2014 school year, there were 80 players who read to over 5,500 students in 234 classrooms in all 13 elementary schools. The Reading Super Bowl fosters an interest in youth reading and showcases the fact that "everyone" reads.



THANK YOU!

Through the generosity of our donors, the North Penn Educational Foundation accepts grant applications twice a year. Each funded project not only enhances the curriculum but provide a hands-on and innovative way for students to embrace and fully comprehend the lesson. When NPSD educators apply for these grants, some think of how this experience will affect the student in the future. Science and technology grants allow students to understand theories at the next level of thinking. Other grants allow teachers to think about how this experience will benefit students socially and vocationally. With out you, and your generosity, the North Penn School District students and staff would not have access to these amazing opportunities. Thank you!

THE PAUL MURPHY MEMORIAL FUND

The Paul Murphy Memorial Fund was established in the fall of 2013. Carolyn Murphy, a Foundation Trustee, a member of NPSD Board of School Directors and a retired North Penn High School German teacher, wanted to honor her late husband and benefit the Foundation at the same time. With the help of her son Michael, the fund was established to support science-related projects for years to come.

THE NPSD EDUCATIONAL FOUNDATION AND THE NORTH PENN ALUMNI ASSOCIATION: A PARTNERSHIP WITH THE PAST FOR THE FUTURE

In 2012, the NPSD Educational Foundation, in conjunction with NPSD administration launched the North Penn Alumni Association as a committee of the Foundation. The association's mission is to encourage networking and communication among North Penn School District alumni and to help maintain and enhance the legacy of North Penn schools for future generations. We hope to see more graduates join us for NPSD and Foundation events, attend reunions and stay informed on the happenings of the district.

We see that NPHS graduates do great things, but what is the most amazing is the pride one takes in saying they are a graduate of North Penn High School. Whether a member of the Class of 2014 or someone who is celebrating their 50th reunion, alumni see North Penn High School as a place that helped to shape them into whom they are today. We are confident that with the support of the community and the 40,000 NPHS graduates, the North Penn Alumni Association with help the Foundation in leaving a lasting effect on our students and North Penn School District. For more information on the North Penn Alumni Association, please visit www.NorthPennAlumni.org.

EITC: YOUR BUSINESS + NORTH PENN SCHOOL DISTRICT + OUR STUDENTS = A WINNING COMBINATION

NPSD Educational Foundation has been approved by the PA Department of Community and Economic Development (DCED) as an Educational Improvement Organization (EIO), meaning that our organization can accept Pennsylvania Educational Improvement Tax Credit (EITC). The EITC makes it affordable for you to contribute to the education of Pennsylvania's children and make a foot print in our community. Read about this exciting program below.